

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS PATENT OF THE UNITED STATES IS:

1. An impingement flow for a wall part (3), in which a plurality of impingement orifices (2) are  
5 arranged areally in a plane or curved carrier (1), the carrier being arranged at a distance from the wall part, and the impingement area, to be cooled or heated, of the wall part (3) being designed as a relief, wherein

Sub 2.0  
- that side of the wall part (3) which faces the impingement jet is provided with a number of troughs (4) arranged next to one another, at least one impingement jet per trough (4) being provided, which impingement jet strikes the trough base at least  
15 approximately perpendicularly, and

- that side of the wall part (3) which is remote from the impingement jet is of at least roughly plane design.

2. The impingement flow as claimed in claim 1,  
20 wherein the trough (4) has the shape of a circle segment or of a base area related thereto.

3. The impingement flow as claimed in claim 2, wherein the trough is of rotationally symmetrical or longitudinally extended design.

25 4. The impingement flow as claimed in claim 1, wherein the wall part (3) is connected indirectly or directly to the carrier (1) via webs (7) formed between the troughs (4).

5. The impingement flow as claimed in claim 1,  
30 wherein the wall part (3) to be cooled or heated is made together with the troughs (4) as a casting.

Sub 2.9  
6. The impingement flow as claimed in claim 1, wherein the impingement orifices (2) form the inlet (2) of impingement tubes (21), the mouth (23) of which is  
35 directed toward the wall part (3) to be cooled or heated.

10002633-120501